

REMARKS

The Invention

Generally, the invention features an isolated population of neural stem cells that form non-adherent clusters in culture.

Summary of the Office Action

Claims 32, 33, 41, 42, 49-52, and 54-60 are pending. Claim 51 is rejected as being indefinite. Claims 32, 33, 49-52, 54-57, 59, and 60 are rejected as being anticipated by Sosnowski et al. (Brain Res. 703: 37-48, 1995) and Ronnett (U.S. Patent No. 5,318,907). All of the pending claims are rejected as being obvious over Sosnowski in view of Anderson et al. (U.S. Patent No. 5,824,489). Each of these rejections is addressed in turn.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claim 51 is rejected for indefiniteness. Applicants have met this rejection by amending claim 51, and this rejection may now be withdrawn.

Rejections Under 35 U.S.C. § 102

Claims 32, 33, 49-52, 54-57, 59, and 60 are rejected as being anticipated by Sosnowski and Ronnett. According to the Office, Sosnowski and Ronnett each inherently describe compositions containing multipotent neural stem cells. The Office further states that, because claims 32, 33, 49-52, 54-57, 59, and 60 are open ended in that they recite the word “comprising,” these claims encompass the cells of Sosnowski and Ronnett and thus are anticipated.

Applicants have met this rejection by amending claims 49-52 (the four independent claims under examination) so that that they are directed to isolated neural stem cells. The term “isolated” refers to the fact that cell types other than the stem cells have been removed (see, for example, page 16, lines 14-16, and page 20, lines 8-9, of the

specification). The use of the word “isolated” in this respect is consistent with the definition of “isolated” as being “pure; not combined” (Webster’s New Universal Unabridged Dictionary, 2nd Edition).

As acknowledged by the Office, at no time did the cultures described by Sosnowski or Ronnett consist of isolated neural stem cells. Sosnowski states that “[t]he dissociated tissue included mostly olfactory epithelium; however, also included were cells from respiratory epithelium, underlying lamina propria, periosteum and vascular tissue.” (page 38, right column; emphasis added). Ronnett similarly fails to describe isolation of neural stem cells, describing a combination of enzymatic digestion and mechanical dissociation to create cultures of olfactory tissue containing multiple cell types.

In sum, Sosnowski and Ronnett each fail to describe a population that includes isolated stem cells. Accordingly, applicants respectfully request the withdrawal of the rejection of claims 32, 33, 49-52, and 54-57 as being anticipated.

Rejections Under 35 U.S.C. § 103(a)

All pending claims (claims 32, 33, 41-47, 49-52, and 54-60) are rejected as being obvious over Sosnowski in view of Anderson. The Office indicates that the previous obviousness rejection has been maintained over applicants’ amendments and remarks submitted with their previous reply because the amended claims lack a recitation of the purity of stem cells. Applicants have amended claims 49-52 (the three independent claims under examination) so that that they are directed to isolated neural stem cells. For this reason, applicants respectfully request that the rejection of the claims as being obvious over Sosnowski in view of Anderson be withdrawn.

Conclusion

Applicants hereby submit that the claims are now in condition for allowance, and such action is respectfully requested. If the claims are not deemed to be in condition for

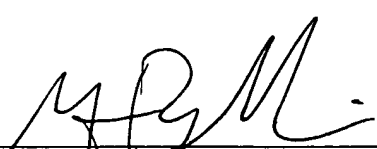
allowance, the undersigned requests a telephone interview in order to discuss the remaining rejections.

Enclosed is a petition to extend the period for replying to the Office Action for two months, to and including October 17, 2004, and a check in payment of the required extension fee. If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

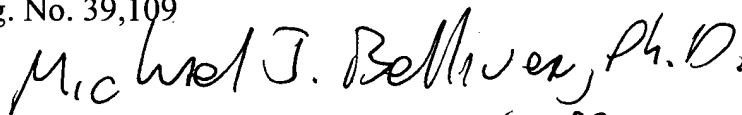
Respectfully submitted,

Date:

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Kristina Bieker-Brady, Ph.D., P.C.
Reg. No. 39,109


Reg. No. 52,608

Clark & Elbing LLP
101 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045